

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-161-16
Relating to Exemptions Under Section 27156
of the Vehicle Code

GALE BANKS ENGINEERING
EXHAUST CROSSOVER PIPES, PARTS NO. 52702-STD AND NO. 52702-HO
FOR 1982-1990 CHEVROLET CAMAROS AND PONTIAC FIREBIRDS
EQUIPPED WITH V8 ENGINES

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the exhaust crossover pipes parts no. 52702-STD and no. 52702-HO manufactured by Gale Banks Engineering has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1982 through 1990 model year Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines.

This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the system manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this system using an identification other than that shown in this Executive Order or marketing of this system for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of a kit shall not be construed as exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE GALE BANKS ENGINEERING EXHAUST CROSSOVER PIPES.

No claim of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

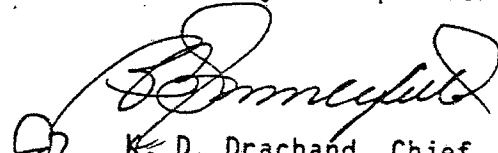
Section 43644 of the Health and Safety Code provides as follows:

"43644, (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executive Order D-161-12, dated November 4, 1988, is superseded and of no further force and effect.

Executed at El Monte, California, this 6th day of September, 1989.


K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF GALE BANKS ENGINEERING'S EXHAUST CROSSOVER PIPES
PARTS NO. 52702-STD AND NO. 52702-HO FOR 1982-1990 CHEVROLET
CAMAROS AND PONTIAC FIREBIRDS EQUIPPED WITH V8 ENGINES

September 1989

State of California
AIR RESOURCES BOARD

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CAMAROS AND PONTIAC FIREBIRDS EQUIPPED WITH V8 ENGINES

by

Mobile Source Division
State of California
Air Resources Board
9528 Telstar Avenue
El Monte, CA 91731

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Gale Banks Engineering (Banks) has requested an update to Executive Order (E.O.) D-161-12, which exempts their exhaust crossover pipes parts no. 52702-STD and no. 52702-H0 from the prohibitions in Vehicle Code Section 27156. The E.O. covered installation of the crossover pipes on 1982-1989 model year Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines. Their update request is to include the 1990 model year Camaros and Firebirds equipped with V8 engines.

Based on the previously submitted information of exhaust emissions from a 1985 Pontiac Firebird and based on the fact that the 1990 model year fuel-injected engines are carry-overs from the 1985 model year, the staff concludes that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which the update is requested.

The staff recommends that Banks be granted an update as requested and that Executive Order D-161-16 be issued.

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EVALUATION OF GALE BANKS ENGINEERING'S EXHAUST CROSSOVER PIPES
PARTS NO. 52702-STD AND NO. 52702-HO FOR 1982-1990 CHEVROLET
CAMAROS AND PONTIAC FIREBIRDS EQUIPPED WITH V8 ENGINES

I. INTRODUCTION

Gale Banks Engineering (Banks) of 546 Duggan Avenue, Azusa CA 91702, has requested an update to Executive Order (E.O.) D-161-12, which exempts their exhaust crossover pipes parts no. 52702-STD and no. 52702-HO from the prohibitions in Vehicle Code Section 27156. The E.O. covered installation of the crossover pipes on 1982-1989 model year Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines. Their update request is to include the 1990 model year Camaros and Firebirds equipped with V8 engines.

Banks has previously submitted a completed application, all the necessary information and comparative exhaust emissions data.

II. CONCLUSIONS

Based on the previously submitted information of exhaust emissions from a 1985 Pontiac Firebird and based on the fact that the 1990 model year fuel-injected engines are carry-overs from the 1985 model year, the staff concludes that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which the exemption update is requested.

III. RECOMMENDATION

The staff recommends that Banks be granted an exemption update for their crossover pipes to include 1990 Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines and that Executive Order D-161-16 be issued.

IV. DEVICE DESCRIPTION AND OPERATION

The Banks crossover pipes are high quality replacements for the original equipment manufacturer (OEM) crossover pipes found on 1982-1990 Camaros and Firebirds equipped with V8 engines. The function of the exhaust crossover pipes (both OEM and Banks) is to route exhaust gases from the two exhaust manifolds of the V8 engine into a common pipe which then feeds the catalytic converter. The OEM crossover pipes are press bent and the connection between the two manifold runners is a T-type joint. This configuration is restrictive and the T-type joint causes high turbulence. The Banks crossover pipes are designed to eliminate this restriction and turbulence and improve engine performance. The Banks crossover pipes use larger tubing which is mandrel bent to provide smoother bends and the two manifold runners are connected with a Y-type joint to reduce turbulence.

Two slightly different crossover pipes are necessary to cover all 1982-1990 Camaros and Firebirds equipped with V8 engines because the carbureted engines have different exhaust manifolds than the fuel-injected engines. Banks part no. 52702-H0 is for fuel-injected engines and no. 52702-STD is for carbureted engines.

The installation of the Banks crossover pipes do not require the disconnection or removal of any OEM emission control components and does not alter the location of the catalytic converter. Installation instructions, included in every kit, show how to properly install the Banks crossover pipes (Appendix A). The Banks kit identification label is shown in Appendix B.

V. DEVICE EVALUATION

Banks crossover pipes for 1982-1989 Camaros and Firebirds equipped with V8 engines were granted an exemption (E.O. no. D-161-12) on November 4, 1988. The exemption was granted on the basis that Banks crossover pipes appear to be

as durable as the OEM crossover pipes which they are designed to replace and that the effectiveness of vehicle's pollution control system was not reduced.

Gale Banks Engineering is making their Banks crossover pipes available for installation on 1990 Camaros and Firebirds equipped with V8 engines. Their Banks crossover pipes are identical to those previously exempted by the Air Resources Board.

In response to the request, the staff compared the engine design of the 1985-1990 models. The staff found that the exhaust crossover pipes would not affect the on-board diagnostic system. Since the engines of the 1990 model year Chevrolet Camaros and Pontiac Firebirds equipped with V8 engines are carry-overs from the 1985-1989 model years, and based on the previously submitted information as well as the comparative exhaust emission tests performed on a 1985 Pontiac Firebird equipped with a 305 CID V8 gasoline fuel-injected engine, the staff is of the opinion that the installation of the Banks crossover pipes will not adversely affect exhaust emissions from the vehicles for which the exemption update is requested.



APPENDIX A
INSTALLATION
INSTRUCTIONS

Gale Banks Engineering 546 Duggan Avenue, Azusa, California 91702 (818) 969-9605

DEAR CUSTOMER,

THIS BANKS POWER PACK EXHAUST SYSTEM IS DESIGNED FOR USE ON 1983 THROUGH 1988 (F-BODY) V-8 CAMAROS AND FIREBIRDS. THESE VEHICLES HAVE BEEN PRODUCED WITH THE LG-4, H.O. AND I.R.O.C. ENGINE OPTIONS, WITH EXHAUST SYSTEMS WHICH VARY WITH ENGINE TYPE AND MODEL YEAR. YOUR BANKS POWER PACK SHOULD CONTAIN THOSE COMPONENTS THAT ARE APPLICABLE TO YOUR VEHICLE'S ENGINE / EXHAUST SYSTEM. THESE INSTRUCTIONS COVER ALL 83-88 F-BODY VEHICLES. READ THESE INSTRUCTIONS THOROUGHLY BEFORE PERFORMING ANY WORK TO FAMILIARIZE YOURSELF WITH THE INSTALLATION AND WHAT STEPS APPLY TO YOUR VEHICLE.

THESE INSTRUCTIONS CONTAIN FOUR PAGES OF TEXT, FIVE PAGES OF ILLUSTRATIONS AND A PARTS LIST. IF YOU ARE MISSING ANY PAGES, OR HAVE ANY QUESTIONS CONCERNING YOUR INSTALLATION, PLEASE CONTACT US. THANK YOU FOR BUYING BANKS PRODUCTS.

WARNING: BEFORE PERFORMING ANY WORK ON THE VEHICLE, MAKE SURE IT IS SUPPORTED BY JACK STANDS OR RAMPS OF SUFFICIENT CAPACITY FOR THE VEHICLE WEIGHT. NEVER WORK UNDER ANY VEHICLE SUPPORTED BY ONLY ITS SERVICE JACK!

9. FOR VEHICLES WITH A 2 BOLT FLANGE (FLARED) OUTLET CONNECTION: CUT THE FLARED END OFF OF THE ORIGINAL INTERMEDIATE PIPE SO THE FLOATING FLANGE CAN BE REMOVED. SLIDE THE FLANGE ONTO THE BANKS INTERMEDIATE PIPE.
10. LIFT THE OVER-AXLE PIPE INTO PLACE ABOVE THE REAR AXLE. INSTALL THE INTERMEDIATE PIPE ON THE CATALYTIC CONVERTER, THEN SLIP THE OVER-AXLE PIPE INTO THE RUBBER HANGER AND ONTO THE INTERMEDIATE PIPE. USE ORIGINAL BOLTS OR 3" U-CLAMP TO ATTATCH INTERMEDIATE PIPE TO CONVERTER.
11. SLIP THE TAIL PIPE TIPS ONTO THE MUFFLER. ADJUST THE TIPS SO THAT THE HOLES IN THE BRACKETS ON THE TIPS LINE UP. INSTALL TWO 2½" U-CLAMPS.
12. LIFT THE MUFFLER-TAIL PIPE ASSEMBLY INTO PLACE, SLIDING MUFFLER ONTO OVER-AXLE PIPE. INSTALL A 5/16-18 x 1½" HEX BOLT, LARGE ORIGINAL WASHER, 5/16 SAE WASHER, AND 5/16-18 LOCKNUT THROUGH ORIGINAL RUBBER MUFFLER HANGER. SEE FIG. 1.
13. CHECK POSITION AND ALIGNMENT OF MUFFLER AND ALL PIPES. CHECK FOR CLEARANCE TO FLOOR PAN, CHASSIS COMPONENTS, PARKING BRAKE CABLE ASSEMBLY, DRIVESHAFT, ETC. LOOSEN U-CLAMPS TO ADJUST PIPES AS REQUIRED. NOTE: TAILPIPE TIPS SHOULD BE 1/2 TO 3/4 INCH FROM LOWER LIP OF BUMPER.
14. START VEHICLE AND LISTEN FOR ANY EXHAUST LEAKS AT PIPE JOINTS. TIGHTEN CLAMPS OR CONVERTER FLANGES AS NECESSARY.
15. DRIVE VEHICLE. LISTEN FOR ANY SOUNDS THAT WOULD INDICATE EXHAUST SYSTEM IS CONTACTING BODY OR CHASSIS, ETC. READJUST PIPING AS REQUIRED. SOME EXHAUST LEAKS ARE ONLY HEARD WHILE THE VEHICLE IS MOVING UNDER LOAD. CORRECT ANY LEAKS THAT ARE HEARD.

WARNING: EXHAUST GAS CONTAINS DEADLY CARBON MONOXIDE. CORRECT ANY EXHAUST LEAKS IMMEDIATELY!

NOTE: IT IS NORMAL FOR THE EXHAUST SYSTEM TO SMOKE SLIGHTLY UPON INITIAL START-UP. THIS IS CAUSED BY THE BURNING OF A LIGHT GREASE COATING ON THE PIPES THAT IS USED DURING THE MANUFACTURING PROCESS.

FIG. 1

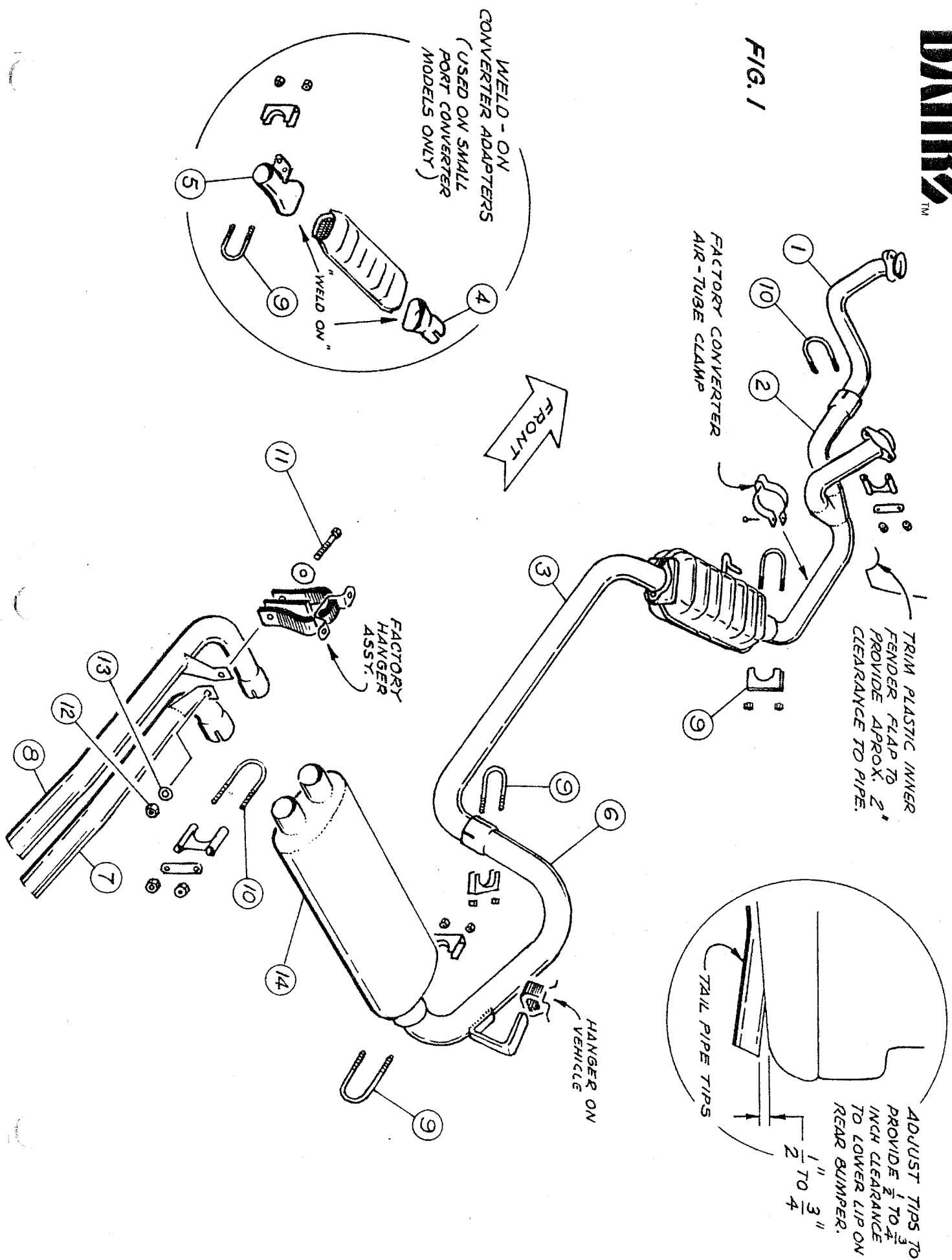
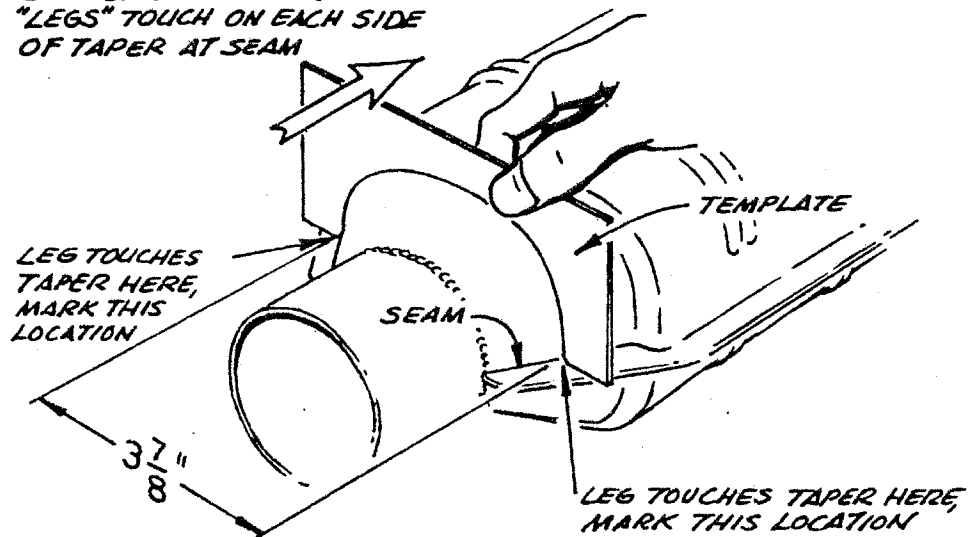
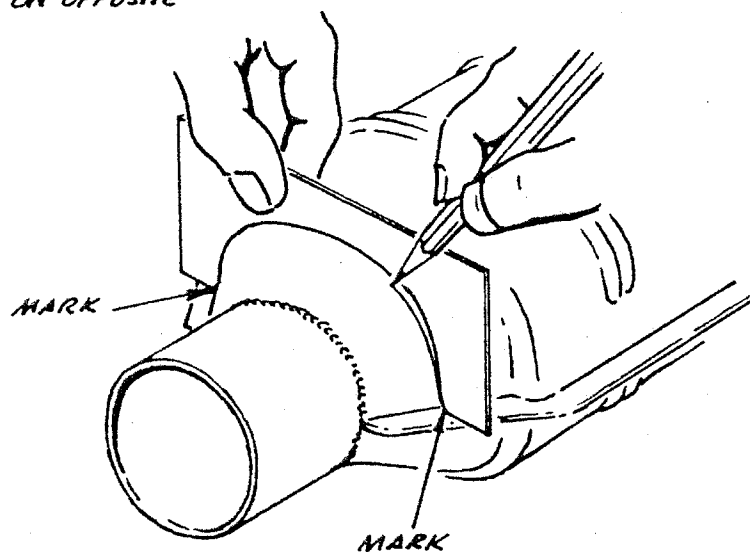


FIG. 4

SLIDE TEMPLATE TOWARD
BODY OF CONVERTER UNTIL
"LEGS" TOUCH ON EACH SIDE
OF TAPER AT SEAM



WHILE HOLDING TEMPLATE
SQUARE TO CONVERTER,
JOIN MARKS TOGETHER
TO ESTABLISH CUT LINE.
REPEAT ON OPPOSITE
SIDE.



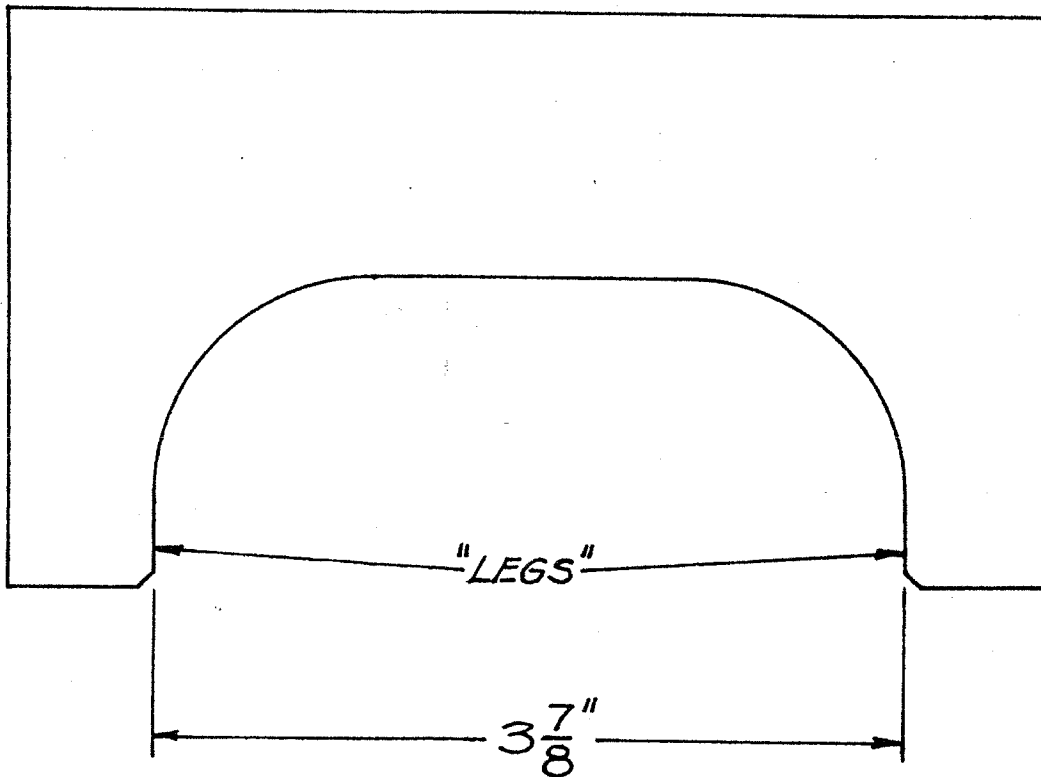


Gale Banks Engineering 548 Duggan Avenue, Azusa, California 91702 (818) 969-9605

FIG. 7

CONVERTER CUT-OFF TEMPLATE

*CUT OUT, TRACE ONTO CARDBOARD,
CUT OUT CARDBOARD TO FORM TEMPLATE*



banks

GALE BANKS ENGINEERING
546 DUGGAN AVE., AZUSA, CA. 91702

EXHAUST SYSTEM FOR CAMARO/FIREBIRD

MODEL Nos. 52702 STD/HO CARB E.O. No. D-161-8

APPENDIX B
IDENTIFICATION
LABEL